

IN THE CLAIMS

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claims 1-13. (Canceled)

Claim 14. (New): An image processing method for executing a gray scale conversion process on an original image, said method comprising:

a first calculation step of calculating a parameter for determining a gray scale conversion processing method from the original image as a first feature amount value;

a second calculation step of calculating a parameter for determining the gray scale conversion processing method from the original image as a second feature amount value;

a selection step of selecting, based on the first feature amount value and the second feature amount value, either the first feature amount value or the second feature amount value; and

a processing step of executing the gray scale conversion process on the original image based on the selected feature amount value,

wherein a first calculation method to be used in said first calculation step is different from a second calculation method to be used in said second calculation step.

Claim 15. (New): An image processing method according to Claim 14, wherein calculation accuracy in the first calculation method is lower than in the second calculation

method, and a success frequency of calculation in the first calculation method is higher than in the second calculation method.

Claim 16. (New): An image processing method according to Claim 14, wherein in the first calculation method, a predetermined area in the original image is limited, and the first feature amount value is calculated from the limited predetermined area, and

wherein in the second calculation method, a subject area is extracted from the original image, and the second feature amount value is calculated from the extracted subject area.

Claim 17. (New): An image processing method according to Claim 14, wherein said selection step includes selecting the feature amount value based on a difference value of the first feature amount value and the second feature amount value.

Claim 18. (New): An image processing method according to Claim 14, wherein the original image includes an image obtained by radiation photography.

Claim 19. (New): An image processing apparatus for executing a gray scale conversion process on an original image, said apparatus comprising:

a first calculation unit adapted to calculate a parameter for determining a gray scale conversion processing method from the original image as a first feature amount value;

a second calculation unit adapted to calculate a parameter for determining the gray scale conversion processing method from the original image as a second feature amount value;

a selection unit adapted to select, based the first feature amount value and the second feature amount value, either the first feature amount value or the second feature amount value; and

a processing unit adapted to execute the gray scale conversion process on the original image based on the selected feature amount value,

wherein a first calculation method to be used by said first calculation unit is different from a second calculation method to be used by said second calculation unit.

Claim 20. (New): A computer-readable storage medium storing a computer program for causing a computer to execute an image processing method for executing a gray scale conversion process on an original image, said program comprising:

code for a first calculation step of calculating a parameter for determining a gray scale conversion processing method from the original image as a first feature amount value;

code for a second calculation step of calculating a parameter for determining the gray scale conversion processing method from the original image as a second feature amount value;

code for a selection step of selecting, based on the first feature amount value and the second feature amount value, either the first feature amount value or the second feature amount value; and

code for a processing step of executing the gray scale conversion process on the original image based on the selected feature amount value,

wherein a first calculation method to be used by said code for the first calculation step is different from a second calculation method to be used by said code for the second calculation step.